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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
10/015,247	12/11/2001	Kent K. Leung	CISCP243/4258	6305
22434	7590	09/14/2007	EXAMINER	
BEYER WEAVER LLP			REVAK, CHRISTOPHER A	
P.O. BOX 70250			ART UNIT	PAPER NUMBER
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Please find below and/or attached an Office communication concerning this application or proceeding.

The time period for reply, if any, is set in the attached communication.

Office Action Summary	Application No. 10/015,247	Applicant(s) LEUNG ET AL.	
	Examiner Christopher A. Revak	Art Unit 2131	

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 12 July 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-11, 13-17, 19-39, 41-51 and 54-82 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☒ Claim(s) 1-11, 13-17, 19-39, 41, 44-51, 54-63, 67-75 and 77-79 is/are allowed.
- 6) ☒ Claim(s) 42, 43, 64-66, 76 and 80-82 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 3/29/02 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
 Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
 Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- | | |
|--|---|
| 1) <input checked="" type="checkbox"/> Notice of References Cited (PTO-892) | 4) <input type="checkbox"/> Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948) | 5) <input type="checkbox"/> Notice of Informal Patent Application |
| 3) <input type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____ | 6) <input type="checkbox"/> Other: _____ |

DETAILED ACTION

Continued Examination Under 37 CFR 1.114

1. A request for continued examination under 37 CFR 1.114, including the fee set forth in 37 CFR 1.17(e), was filed in this application after final rejection. Since this application is eligible for continued examination under 37 CFR 1.114, and the fee set forth in 37 CFR 1.17(e) has been timely paid, the finality of the previous Office action has been withdrawn pursuant to 37 CFR 1.114.

Response to Arguments

2. Applicant's arguments filed with respect to claims 1-11,13-17,19-39,41,44-51,54-63,67-75 and 77-79 have been fully considered and are persuasive. The claims are allowable over the prior art of record.

3. Applicant's arguments filed with respect to claims 42,43,64-66,76 and 80-82 have been fully considered but they are not persuasive.

As argued by the applicant, it is asserted that there is no reference in Agraharam that the "pseudo home agent" is located on a foreign network that the mobile node is visiting and that Agraharam teaches away from sending a registration request to a home agent located on a foreign network that the mobile node is visiting.

The examiner disagrees with the applicant's assertion. The teachings of Khalil are relied upon for disclosing of handling registration requests, see page 13, lines 20-30 and page 18, lines 36-48. Agraharam is relied upon for disclosing that the home agent

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being located on a foreign network that the mobile node is visiting. In response to applicant's arguments against the references individually, one cannot show nonobviousness by attacking references individually where the rejections are based on combinations of references. See *In re Keller*, 642 F.2d 413, 208 USPQ 871 (CCPA 1981); *In re Merck & Co.*, 800 F.2d 1091, 231 USPQ 375 (Fed. Cir. 1986).

Agraharam additionally disclosed that mobile hosts register each time they connect to a new premises network which includes a foreign network, see column 4, lines 40-43, so the applicant's arguments are non-persuasive.

As per claims 42 and 76, in response to applicant's arguments, the recitation "registration requests" has not been given patentable weight because the recitation occurs in the preamble. A preamble is generally not accorded any patentable weight where it merely recites the purpose of a process or the intended use of a structure, and where the body of the claim does not depend on the preamble for completeness but, instead, the process steps or structural limitations are able to stand alone. See *In re Hirao*, 535 F.2d 67, 190 USPQ 15 (CCPA 1976) and *Kropa v. Robie*, 187 F.2d 150, 152, 88 USPQ 478, 481 (CCPA 1951).

Claim Rejections - 35 USC § 103

4. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made

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to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

5. Claims 42, 64-65, 76 and 80-82 are rejected under 35 U.S.C. 103(a) as being unpatentable over Khalil et al. (WO 01/26322) in view of Agraharam et al. (US 6,407,988).

As per claim 42, Khalil is directed to a method of authenticating a registration request associated with a mobile node in a network device for performing authentication of a mobile node comprising

- a. Receiving a request packet including authentication information associated with the mobile node and indicating that a home agent is to be assigned to the mobile node. [See Page 12, lines 17-22 and Page 14, lines 12-18]
- b. Authenticating the mobile node using the authentication information [See Page 18, lines 13-22].
- c. Assigning a home agent to the mobile node [See Page 18, line 13 – Page 19, line 23].
- d. Sending a reply packet identifying the home agent assigned to the mobile node. [See Page 18, line 13 – Page 19, line 23]

Khalil fails to teach the home agent being located on a foreign network that the mobile node is visiting. Agraharam is directed to a method for providing a temporary home agent (pseudo home agent) on a foreign network which teaches the home agent being located on a foreign network that the mobile node is visiting [See Col. 5, line 20 –

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Col. 6, line 33]. Khalil and Agraharam are analogous art because they are both directed to communications throughout Mobile IP networks. It is obvious to one skilled in the art to allow a home agent to be located on a foreign network in order to provide "enhanced privacy features to mobile hosts and conserve resources of the networks that carry data to the mobile hosts" [See Col. 1, lines 43-46].

As per claim 64, Khalil is directed to a method of registering a mobile node in a mobility agent supporting mobile IP, comprising:

- a. Receiving a Mobile IP registration request packet, the Mobile IP registration request packet having an extension including a key to be shared by the mobility agent and the mobile node. [See Page 11, lines 17-19, 23-25 and Page 13, line 11-14]
- b. Obtaining the key from the extension of the Mobile IP registration request packet. [See Page 13, lines 14-19]
- c. Storing the key, thereby enabling the mobile node to subsequently register directly with the mobility agent. [See Page 13, lines 14-19 and Page 14, lines 1-4]
- d. Authenticating the Mobile IP registration request packet using the key. [See Page 18, lines 36-48]
- e. Composing a Mobile IP registration reply packet [See Page 13, lines 20-30]
- f. Sending the Mobile IP registration reply packet to the mobile node. [See Page 13, lines 20-30]

Khalil fails to teach the home agent being located on a foreign network that the mobile node has roamed. Agraharam is directed to a method for providing a temporary home agent (pseudo home agent) on a foreign network which teaches the home agent being located on a foreign network that the mobile node has roamed [See Col. 5, line 20 – Col. 6, line 33]. Khalil and Agraharam are analogous art because they are both directed to communications throughout Mobile IP networks. It is obvious to one skilled in the art to allow a home agent to be located on a foreign network in order to provide “enhanced privacy features to mobile hosts and conserve resources of the networks that carry data to the mobile hosts” [See Col. 1, lines 43-46].

As per claim 65, Khalil and Agraharam are applied as stated in the rejection of claim 64. Khalil further teaches decrypting the key. [See Page 13, lines 20-30]

Claim 76 is a “system” claim analogous to “method” claim 42. Claim 76 is rejected based on the same rationale as the rejection of claim 42.

Claims 80-82 are “system”, “computer-readable medium”, and “apparatus” claims analogous to “method” claim 64. Claims 80-82 are rejected based on the same rationale as the rejection of claim 64.

6. Claim 43 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khalil et al. (WO 01/26322) in view of Agraharam et al. (US 6,407,988) and further in view of Chowdhury et al. (US 2002/0114323).

As per claim 43, Khalil and Agraharam are applied as stated in the rejection of claim 42. Khalil teaches the use of an AAA server [See Page 16, lines 23-29], but fails

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to teach the usage of a RADIUS access request packet. Chowdhury is directed to a method for dynamically assigning a home agent that teaches that the network device is an AAA server, wherein the request packet is a RADIUS access request packet and wherein the reply packet is a RADIUS access reply packet [See 0020]. It is obvious to one skilled in the art to use an AAA server as well as a RADIUS access request packet as described by Chowdhury in assigning a home agent as described by Khalil. The usage of the AAA server and the RADIUS protocol would increase the security capabilities of Khalil's system.

7. Claim 66 is rejected under 35 U.S.C. 103(a) as being unpatentable over Khalil et al. (WO 01/26322) in view of Agraharam et al. (US 6,407,988) and in further view of Rai (US Patent Number 6,421,714).

As per claim 66, Khalil and Agraharam are applied as stated in the rejection of claim 64. Khalil and Agraharam fail to teach that the registration packet indicates an IP address is requested. Rai is directed to a Mobility management scheme which teaches that the registration request packet indicates that an IP address is requested, comprising:

- a. Assigning an IP address to the Mobile Node. [See Col. 9 line 61 – Col. 10 line 14]
- b. Wherein the registration reply packet includes the assigned IP address. [See Col. 9 line 61 – Col. 10 line 14]

Khalil and Rai are analogous art because they are both directed to methods for communications between wireless devices. Including and IP address in the reply packet is well known in the art. It is obvious to include the IP address of Rai in the method of receiving a reply of Khalil in order to identify which agent the node is registered with and to keep track of the node.

Conclusion

8. Any inquiry concerning this communication or earlier communications from the examiner should be directed to Christopher A. Revak whose telephone number is 571-272-3794. The examiner can normally be reached on Monday-Friday, 6:30am-3:00pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Ayaz Sheikh can be reached on 571-272-3795. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

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September 11, 2007

CHRISTOPHER REVAK
PRIMARY EXAMINER

